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AMSAT NEWS SERVICE
ANS-150

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to: ans-editor(a)amsat.org

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see:
https://mailman.amsat.org/postorius/lists/ans.amsat.org/

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ANS-150 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 150.01
To: All RADIO AMATEURS
From: Radio Amateur Satellite Corporation
712 H Street NE Suite 1653
Washington, DC 20002

DATE 2021 May 30

FCC Considers UHF/Microwave Ham Bands for Commercial Space Launch Frequencies

The FCC in April issued a Report and Order allocating spectrum in the 2200-2290 MHz range for private space travel and satellite launch companies to use for pre-launch testing and space launch operations. The order creates a non-federal secondary allocation for these uses in spectrum that is currently reserved exclusively for federal government use.
The action also includes a Further Notice of Proposed Rulemaking which seeks comment on possible additional spectrum for private space launch purposes. Among the frequencies specifically mentioned are 420-430 MHz in the 70-centimeter amateur band and 5650-5925 MHz, which is the 5-centimeter ham band. Amateur radio has a secondary allocation in each of these bands, and the NPRM made no mention of the bands' current occupants and/or whether they

would be displaced. The 5.6-GHz band is already shared widely with home WiFi networks.

[ANS thanks CQ Newsroom for the above information]

ASU student-built spacecraft to interact with the public

NASA has selected an Arizona State University-designed spacecraft to fly as an auxiliary payload aboard a rocket launching between 2022 and 2025. It is among 14 small research satellites, called CubeSats, that were chosen for this opportunity through NASA□s CubeSat Launch Initiative. The ASU CubeSat, named LightCube, is about the size of a toaster and will be deployed to low-Earth orbit (LEO). Its unique feature is that it can be commanded by anyone with an amateur radio license and a ham radio to set off a xenon flash from the spacecraft that will be visible from the ground.
Additional Details are available at https://bit.ly/3fF9v4B

[ANS thanks Karin Valentine, Media Relations & Marketing Manager, School of Earth and Space Exploration at ASU for the above information]

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and responsible.
The report highlights the possibility and implications of accidents. Random pieces of untracked space debris, or even meteors, could disable these satellites, disrupting their careful orbits and the deorbiting plans. The sheer number of these new satellites increases the risk.

[ANS thanks CBC radio host and blogger Bob McDonald for the above information]

Andy MacAllister, W5ACM, SK

>From Marty Smith, WV5Y: "It's with much sadness and deep regret I announce our buddy, Andy, W5ACM - Past AMSAT Board of Directors, King of the South Texas Balloon Launch Team, The Voice of The Houston AMSAT Net and KTRU Rice Radio Engineer and DJ, AndyMac - Passed away on the evening of Wednesday, 5/19/2021. Andy's wife Heather said he was on his computer until a few minutes before...
His funeral service was held on Thursday, May 27th 2021 at 12:30 PM at the Pines Presbyterian Church (12751 Kimberley Ln, Houston, TX 77024-4097).
Andy will be missed very much by all of his family, friends and coworkers. He lived life to the fullest, and his lust for life was contagious. Our common interests in everything high tech, scientific & electronic, was shared by many, and he had great taste in food, drink, and music, especially loving classic rock & roll! He will forever be in our minds and hearts. 73, Marty Smith, WV5Y"

>From AMSAT Director Bruce Paige, KK5DO: "Andy, W5ACM (ex WA5ZIB), became a Silent Key on May 19, 2021. He has been a close friend of mine since I became a ham in 1993. That was when I found satellites and AMSAT. Andy had been doing the Houston AMSAT Net and I became involved in the net. We have done over 1400 episodes of the net since then. Andy and I had a great time at many AMSAT Symposiums where we would work satellites from parking lots of restaurants or outside a hotel. During the AMSAT Symposium in 2016, we worked each other from the deck of the cruise ship when we were standing about 3 feet from each other.
Andy spent some time in the early 90's on the AMSAT Board of Directors. Many of today's hams would not remember the K2ZRO tests on AO-13. When the satellite was at apogee, Andy would transmit a string of CW characters. He would then reduce his power by 50% and transmit another string of characters. This would be done 8 times to a point where the signals were very weak. Hams around the world would participate and receive a certificate with an endorsement for the level you achieved.
Andy got into balloon launches. I do not remember when BLT-1 was launched but BLT-12 was launched in 1993 and they are into the 60's now. The balloons have gone up with all types of experiments on them and have come down in many a strange place. One came down in the Gulf of Mexico, picked up by a fishing boat and they called the number on the package. Of course that one was not reusable as everything was a tad bit wet. The balloon came down in someone's front yard once and they picked it up and took it inside. GPS told the tale and knocking on the door, the homeowner returned the package. A few recent balloon launches have traversed the globe one or two times.
Andy had worked at NASA and was a member of the Johnson Space Center ARC as well as the Brazos Valley ARC in Houston, the ARRL and AMSAT. More recently he was the Chief Engineer for the radio station, KTRU, at Rice University in Houston. Andy gave talks and demos at many Houston area hamfests.
It was only a few months ago in February that Andy went in for a quick procedure and they found something that should not be. He was sent home for hospice care. You will be missed my friend. ... _._
73...Bruce"

Andy's wife, Heather, has requested that donations in his name be made to AMSAT or the Brazos Valley Amateur Radio Club, P.O. Box 2997, Sugar Land,

TX 77487-2997 (reference the Andy MacAllister BLT Memorial Fund). Donations
to AMSAT in his name may be made at
https://www.amsat.org/donations/w5acm-memorial/

[ANS thanks Marty Smith, WV5Y for the above information]

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module and replace biological and material science samples on the exterior of the Russian modules.
Novitskiy, who is designated as extravehicular crew member 1 (EV1), will wear a Russian Orlan spacesuit with red stripes. Dubrov will wear a spacesuit with blue stripes as extravehicular crew member 2 (EV2). This will be the first spacewalk for both cosmonauts and the 238th spacewalk overall in support of space station assembly, maintenance, and upgrades. It also marks the sixth spacewalk of 2021.
See the NASA TV streaming video, schedule and downlink information at:
http://www.nasa.gov/ntv
Learn more about the International Space Station and its crew at:
http://www.nasa.gov/station

[ANS thanks NASA for the above information]

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The Father's House Christian School (Home Education Provider: Roots), Morinville, Alberta, Canada, multi-point telebridge via VK4KHZ. The ISS callsign is presently scheduled to be NA1SS. The downlink frequency is presently scheduled to be 145.800 MHz. The latest information on the operation mode can be found at: https://www.ariss.org/current-status-of-iss-stations.html. The scheduled astronaut is Akihiko Hoshide KE5DNI. Contact is go for: Wed 2021-06-02 14:28:53 UTC 44 deg.

Lipetsk, Russia, direct via TBD. The ISS callsign is presently scheduled to be RSØISS. The downlink frequency is presently scheduled to be 145.800 MHz. The latest information on the operation mode can be found at https://www.ariss.org/current-status-of-iss-stations.html. The scheduled astronaut is Pyotr Dubrov. Contact is go for Fri 2021-06-11 11:40 UTC.

Velikiy Ustyug, Russia, direct via TBD. The ISS callsign is presently scheduled to be RSØISS. The downlink frequency is presently scheduled to be 145.800 MHz. The latest information on the operation mode can be found at https://www.ariss.org/current-status-of-iss-stations.html. The scheduled astronaut is Oleg Novitskiy. Contact is go for Sat 2021-06-12 09:15 UTC.

Lipetsk, Russia, direct via TBD. The ISS callsign is presently scheduled to be RSØISS. The downlink frequency is presently scheduled to be 145.800 MHz. The latest information on the operation mode can be found at https://www.ariss.org/current-status-of-iss-stations.html. The scheduled astronaut is Pyotr Dubrov. Contact is go for Sat 2021-06-12 10:55 UTC.

The latest information on the operation mode can be found at https://www.ariss.org/current-status-of-iss-stations.html
The latest list of frequencies in use can be found at https://www.ariss.org/contact-the-iss.html

[ANS thanks Charlie Sufana, AJ9N, one of the ARISS operation team mentors for the above information]

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DM62: K5TA, I'm tentatively planning for DM62 ~9-July, when there are are several good passes mid-day, making it a doable day-trip for me
.
EN57/67: @SeanKutzko KX9X and @Nancy_N9NCY will celebrate Sean's birthday in the Michigan's Keweenaw Peninsula July 15-19. Look for them on FM and SSB satellites, with the possibility of some Parks On The Air activity as well.

Please submit any additions or corrections to Ke0pbr (at) gmail.com
Updated 05/19/2021

[ANS thanks Paul Overn, KE0PBR, AMSAT rover page manager for the above information]

Hamfests, Conventions, Maker Faires, and Other Events

On the Air event: AMSAT Italia: Members of AMSAT Italia commemorate Gagarin's flight into space until the end of the year with the callsign II0SAT on HF and via satellite.

Satellites on Field Day: Seth Kutzko, KX9X, made an outstanding presentation to the RATPAC group on Satellites and Field Day. The session was held on Thursday May 27 during a weekly RATPAC meeting. Seth presented more than just a "how to", his tips and tricks were very valuable for new entrants and his cautions were particularly well taken. This presentation is a must for any Field Day group that is contemplating chasing the 100-point bonus. Dan Marler, K7REX has made the presentation, documents, and the video available:
To View Video: https://vimeo.com/556034517
To Download Video:
https://vimeo.com/user107547861/download/556034517/954b837d38
To Retrieve Documents:
https://www.dropbox.com/sh/cktvhfz1lhvv8hr/AADzoAi0HiGccLLG6IdnY24Aa?dl=0Radio
The Amateur Training Planning and Activities Committee (RATPAC) comprises ARRL section managers, appointed field leadership, and membership. Together, we host nationwide Amateur Radio Zoom presentations twice-a-week, Wednesdays on general radio topics and Thursdays on amateur radio emergency communications. The topics are selected from audience recommendations that the planning committee then seeks topic experts or discussion panel members. The presentation audience consists of thousands of amateur radio operators worldwide who participate directly in the Zoom sessions or with video links of the presentation and related documentation sent out after each session.

AMSAT Ambassador Clint Bradford K6CLS is planning the following presentations:
University of Arizona - June 1
Conejo Valley (CA) - October 21
Wellesley ARC - June 15
White Mountain ARC - June 2
West Valley (CA) ARC - June 9

Think a 90-minute lively, informative, and fun "How to Work the Easy Satellites" Zoom presentation would be appropriate for your convention or club? Always includes are overviews of the ARRL, AMSAT, and ARISS
 and
pre-presentation questions are solicited and welcome. Send Clint an email or call!
Clint Bradford K6LCS, http://www.work-sat.com. Tel:909-999-SATS (7287)

[ANS thanks Paul Overn, KE0PBR, AMSAT Events page manager, AMSAT Italia, Dan Marler, K7REX RATPAC Leader and Idaho Section Manager, and Clint Bradford, K6CLS AMSAT Ambassador for the above information]

Satellite Shorts From All Over

+ June 2021 Eclipse Festival Seeks Ham Participants
HamSCI is looking for ham radio operators to make recordings of time-standard stations during the June 2021 annular solar eclipse across the Arctic Circle as part of a citizen science experiment. Researchers will use the crowd-sourced data to investigate the superimposed effects of auroral particle precipitation and the eclipse on HF Doppler shift. For details, see: https://bit.ly/3ukP6ai [ANS thanks HamSci and ARRL News for the above information]

+ Hackaday Satellite Commnications Hack Chat scheduled for 2 June, 2021 - 19:00Z Paul Marsh from UHF-Satcom will join us for the 2 June Hack Chat. The number of satellites whizzing along above our heads is truly mindboggling, with the number growing daily. Each of these spacecraft is up there for a specific reason, and a lot of them are doing interesting things. Listening in on what they have to say can be a lot of fun, but learning the ropes and getting that first capture can be tricky. Paul Marsh will stop by the Hack Chat to share the ins and outs of monitoring satellite communications and give us some insight into what the satcom hobby is all about. [ANS thanks the hackaday.io Newsletter for the above information]

+ The possibility of a Europa Lander is under study. Intense radiation from Jupiter converts ice and dust on the surface of its icy moon Europa into energetic compounds, which may cycle through the ice and ultimately be food for microbes in the ocean below. NASA has been developing a potential Europa Lander mission to look for such chemistry since 2016 (and also previously in 2005 and 2012). This mission concept proposes a 575 kg battery-powered lander with a limited (but still impressive) lifespan of 1-3 months. Additional information is available at https://go.nature.com/3oRkVXf and https://bit.ly/3hWvsyE [ANS thanks The Orbital Index for the above information]

+ The March/April 2021 edition of Apogee View has been posted to the AMSAT website at https://www.amsat.org/apogeeview/
+ Congratulations to John Papay, K8YSE, for becoming the first amateur satellite operator to receive the GridMaster Award twice! John was the first recipient of the GridMaster Award, issued for completing QSOs with all 488 of the grid squares within the continental United States (analogous to the Fred Fish Memorial Award issued by the ARRL for completing the same feat on six meters) in May of 2014. John's second award, the 30th issued, was for QSOs completed while operating as K8YSE/7 in Mesa, Arizona. More information about the GridMaster Award can be found at https://www.amsat.org/gridmaster/ (Thanks to AMSAT Director of Contests and Awards Bruce Paige, KK5DO).

+ A couple of amateur satellite operators in Nova Scotia have been taking advantage of their favorable geographic location to set new distance records on various satellites. On May 5, 2021, John Langille, VE1CWJ, and Jérôme LeCuyer, F4DXV, claimed the initial distance record on the newly activated satellite JO-97 with a QSO cover 4,889 km between FN85ii in Nova Scotia and JN04it in France. Dana Rushton, VE1CWJ, also in FN85ii, set the new record on XW-2C on May 18, 2021, completing a QSO with F4DXV in JN04jr covering 4,897 km. Finally VE1CWJ and F4DXV also set a new record on LilacSat-2 on May 27, 2021, completing a 4,888 km QSO between FN85jn and JN04jr. For a list of current satellite records and instructions for claiming new (or old) ones, visit https://www.amsat.org/satellite-distance-records/ [ANS thanks AMSAT Executive Vice President Paul Stoetzer, N8HM for the above information]

+ JAMSAT has posted the FO-99 operating schedule for June at https://www.jamsat.or.jp/?p=1438 (ANS thanks JAMSATfor the above information])
+

Dr. Alan Johnston, KU2Y, AMSAT Vice President - Educational Relations, made a presentation on the AMSAT CubeSat Simulator to the Holmesburg Amateur Radio Club on May 21, 2021. A copy of his presentation can be found at https://www.cubesatsim.org/pres/AMSAT_HARC_Presentation.pdf [ANS thanks AMSAT Executive Vice President Paul Stoetzer, N8HM for the above information]

+ Last weekend, AMSAT President Robert Bankston, KE4AL, Executive Vice President Paul Stoetzer, N8HM, Founding President Perry Klein, W3PK, and Manager Martha Saragovitz spent three days cleaning out the AMSAT office in Kensington, Maryland, moving documents and other AMSAT items to a storage facility. This completes the transition of AMSAT from operating a physical office location to a fully virtual operation. The savings of nearly $150,000 per year from the closing of the physical office, transition to digital delivery of The AMSAT Journal, and Martha's retirement ensures that AMSAT will remain financially healthy and able to Keep Amateur Radio in Space for many years to come. [ANS thanks AMSAT Executive Vice President Paul Stoetzer, N8HM for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Store.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact info [at] amsat.org for additional student membership information.

73 and Remember to help keep amateur radio in space,
This week's ANS Editor, Jack Spitznagel, KD4IZ
kd4iz at frawg dot org